

CLAIMS

1. A vehicular traffic monitoring system comprising a mobile telephone network including a plurality of base stations for receiving and transmitting signals from and to mobile telephones, and a position monitoring unit for deriving the position of mobile telephones communicating via the mobile telephone network, the position monitoring unit comprising a store for storing identification and position data for a plurality of mobile telephones and a traffic flow analyser for determining traffic flow at positions of mobile telephones wherein the store and traffic flow analyser are configured such that the traffic flow is predominantly determined only from identification and position data of a subset of mobile telephones, the subset being those mobile telephones of users that have indicated a traffic monitor request to the mobile telephone network.

2. A system according to claim 1, wherein the subset of mobile telephones is those that have transmitted a traffic monitor request to the mobile telephone network.

3. A system according to claim 1 or 2, wherein the mobile telephones in the subset of mobile telephones are each arranged to broadcast a signal to the network more frequently than mobile telephones not in the subset.

4. A system according to claim 1, 2 or 3, wherein the traffic flow analyser is configured to determine traffic flow by giving a greater weighting to position data of the subset of mobile telephones.

5. A system according to any of claims 1 to 4, wherein the traffic flow analyser is configured to determine a confidence rating for the route of each mobile telephone in the subset.
- 5 6. A system according to claim 5, wherein the traffic flow analyser is configured to determine traffic flow is a function of the data of the subset with a higher confidence rating.
- 10 7. A system according to any preceding claim, wherein the position monitor is configured to determine traffic flow as a function of the data of the subset with higher speeds.
8. A traffic flow analyser as claimed in any preceding claim.
- 15 9. A mobile telephone adapted for use with a vehicular traffic monitoring system, associated with a mobile telephone network, comprising:  
  
a radio unit, processor and memory for providing telephone communication with a mobile telephone network including periodic update signals and arranged to provide a traffic update signal function, the traffic update signal function comprising an input for receiving a request from a mobile telephone user for traffic information and an output for causing the radio unit to broadcast an update signal more frequently than usual.
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10. A mobile telephone according to claim 9, wherein the traffic update signal function is arranged to cause the radio unit to broadcast an update signal as a function of traffic flow data provided by the traffic monitoring system.
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11. A method for monitoring vehicular traffic in a mobile telephone network comprising deriving the position of mobile telephones communicating via the mobile telephone network, storing identification and position data for each of the plurality of mobile telephones, determining traffic flow at positions of mobile telephones, wherein the step of determining traffic flow is providently determined only from identification and position data of a subset of mobile telephones, the subset being those mobile telephones of users that have indicated a traffic monitor request to the mobile telephone network.
12. A method according to claim 11, wherein the subset of mobile telephones is those that have transmitted a traffic monitor request to the mobile telephone network.
13. A method according to claim 11 or 12, wherein the step of determining a traffic flow is achieved by giving a greater weighting to position data of the subset of mobile telephones.
14. A method according to claim 11, 12 or 13, wherein the step of determining traffic flow comprises a function placed on a confidence rating of the route of each mobile telephone in the subset.
15. A method according to any of claims 11 to 14, wherein the step of determining traffic flow is a function of the data of the subset with a higher confidence rating.
16. A method according to any of claims 11 to 15, wherein the step of determining traffic flow is a function of the data of the subset with higher speeds.

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